

An engineering-based novel DNA Separation system

Project Description: DNA separation technology plays a crucial role in several fields of biotechnology and medicine, including genome sequencing, DNA fingerprinting, pathogen identification, and various genetic assays utilized to diagnose diseases. The Gel extraction kit, High Performance Liquid Chromatograph (HPLC), and gel electrophoresis are commonly used technologies for DNA separation. However, there are shortcomings in each technology, or system such as low recovery rate, small amount, complex procedure, high cost etc. Therefore, here we propose a novel DNA Separation system, which incorporates the several engineering technologies to solve those problems, and thereby targets to offer the better controlled and competitive system. Moreover, it aims at eventually making a commercial product in the DNA separation system as well. As the initial step, it encompasses the experimental test and design, and finally design a prototype and test it, prior to transiting it to the commercialization process.

Job Description: We are seeking a highly motivated and active research fellow specializing in any field of Engineering or Science, or related field with a focus on the bio, or biomedical engineering. The ideal candidate will be one who is very willing to learn the new technologies, or areas and furthermore consider this is his, or her own project (Ownership). The research fellow will play a key role in achieving this project by managing, designing, implementing, performing the experiment and analyzing the data. Collaborating closely with a diverse team of researchers and engineers, you will actively contribute to the development and submission of research papers in decent reputable journals. Throughout the experience as a Focused Research Extended Experience (FREE) research fellow, you will be able to cultivate the relevant research and practical skills in a focused and extensive manner such that enhancing your chances for advancing graduate studies or getting a long term well-paid industrial job.

The term of employment spans two years, and the contract is structured for annual renewal.

Qualifications:

- Master's or bachelor's degree in any field of Engineering or Science, or related field with a focus on the bio, or biomedical engineering, or biophysics.
- Plus on the experience with the experimental test, and design.
- Plus on the experience of the biological or biomedical technologies